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## NOTES ON THE DERBY FLYCATCHER

By ADRIAAN VAN ROSSEM

DURING the six months between February 10 and August 1, 1912, while collecting in the little republic of Salvador on the west coast of Central America, it was my fortune to make a more than casual acquaintance with the Derby Flycatcher (*Pitangus sulphuratus derbianus*). Though extensive notes were taken on the birds themselves there are many points in regard to incubation, care of the young, etc., which, in the pursuit of other equally interesting species and frequent change of collecting ground, were passed over.

Aside from the superabundant and ever-present Black Vulture (*Catharista atrata*) or "Sope" (which name, by the way, is occasionally given to the priests because of the merely external resemblance), no bird is better known by the native population, or more quickly noticed by even the most disinterested visitor than the strikingly colored and noisy "Chio", not so much because of the abundance of the latter birds, but because with the exception of a few Nicaraguan Boat-tailed Grackles (*Megaquiscalus nicaraguensis* subsp.?) or stray Giraud Flycatchers (*Myiozetetes texensis texensis*) they are practically the only small bird to be found inside the larger towns. Though noted in greater or lesser numbers in every locality visited, from the top of Volcan de San Salvador to the mangrove swamps along the coast, the center of their abundance is the highly cultivated district surrounding the two largest cities, San Salvador and Santa Ana, which are situated at about two thousand feet above sea level. Toward the two extremes of altitude (sea level and 7000 feet) the birds become scarcer; decidedly so in the mountains and to a much less degree at the coast. At Acajutla, the port of entry, they were quite common. The intermediate zone is, as has been mentioned above, under intense cultivation, but at the same time is criss-crossed and cut by innumerable steep-banked gullies varying in depth from a few feet to over a hundred, most of the larger ones containing water, and all, of course, hung with a tangle of tropical growth. Some of the narrower of these gullies are completely arched by trees growing on the rims. These ravines together with the tiny "fincas" or farms placed on the ridges (sometimes half a mile wide) between, make from a Derby standpoint an ideal breeding locality, as proven by the presence of numerous nesting pairs. At a lower elevation where the more open country is given over to cattle pastures they are also very common but do not seem to nest, as a general thing, so close to the ranch houses as in densely populated sections. These birds were found in considerable numbers, too, around Lakes Ilopango and Chammico.

At the time of my arrival Derby Flycatchers were already paired off, but it was not until the first week in March that nest-building in the vicinity of San Salvador at least had commenced. The first nest which came under observation was about half completed on the 15th and was collected with four fresh eggs on the 28th. In this instance, then, nearly a month must have been required to build the nest and lay the full complement of eggs. Perhaps this time is unusually long, but as all that were subsequently found were already occupied at the time of discovery there was no means of determining this point.

A wide variety of nesting sites is chosen. Near San Salvador where cocoanut palms are abundant these are generally selected, the nest resting on one or two of the lower fronds at their juncture with the main stem. Ordinarily a rather short palm is used, an average height being, say, twenty feet. The lowest was a scant six; the highest a good fifty. In the lower country a small mesquite-

like tree grows commonly close to water and is used by several other birds in common with the Derbys; among them the Hooded Cactus Wren (*Heleodytes capistratus capistratus*), the Sclater and Lichtenstein Orioles (*Icterus sclateri* and *Icterus gularis gularis*), Giraud Flycatcher, and Gray Becard (*Platypsaris aglaiae latirostris*). These trees almost without exception were swarming with fire ants which lived in the greatly enlarged and swollen thorns and whose sting is very sharp and irritating. They seemed to cause the birds no inconvenience, even though the tearing apart of a nest would sometimes show the insects present in considerable numbers. Wasps' nests were encountered all too frequently for comfort and the above mentioned species sometimes built near them, undoubtedly for the added protection. One Derby's nest was built over and partially supported by a wasps' nest as big as a foot-ball. That of a Hooded Cactus Wren was also observed in a like situation. It may be noted here that the country Derbys seem to be much more peaceably inclined than are their city kin, often nesting in close association with one or more pairs of other species. In one case four nests were found in one small tree, a Derby's, a Giraud Flycatcher's, a Lesson's and a Lichtenstein's Oriole. Three other nests may be recorded as being in rather unusual locations; one in a dead tree sticking out of a mud flat about two hundred yards from shore at Lake Ilopango, another in a tangle of vines hanging over a bank, and the third thirty feet up in a great creeper-hung tree and almost hidden in a cluster of purple orchids.

Remarkable similarity in construction, material and shape of nests was noticeable. The body, including the roof, made up of fine dead grass stems with the addition of much soft stuff, such as feathers, plant down and small rags (when available), was rather loosely put together. The cup (or more properly saucer, in this case) consisted of slightly coarser grass stems well packed and smoothed down and placed well toward the back of the nest; entrance on the side and pointing slightly downward, thus making a more effective water-shed. Measurements: outside, eighteen inches long by ten wide by eight high; inside, (nest cavity) seven inches long by five wide by five high, the saucer taking up the whole floor. These measurements were taken from the first nest collected and may be a little larger than the average. By the time the young are ready to leave, the formerly purse-shaped nest has been flattened out and blackened by the tropical rains and sun, and the young birds have so enlarged the entrance that the entire cavity can be plainly seen.

Fresh eggs were found from March 28 to the first of June, so two broods at least are raised each year. In every instance a new nest was built for the reception of the second set, whether the birds succeeded in raising a first brood or not; but in neither case was material ever taken from the first nest to be used in the second. Number of eggs ran from four usually, three occasionally, to two once.

In the city of San Salvador are a great many birds which are without doubt non-breeders (as only two nests were found in the city proper), even though they are mostly in pairs. These individuals, having nothing better to do, contrive to keep things lively by scrapping not only with each other but with anything that happens to attract their attention, such as a stray house-cat or a wandering hawk.

A favorite lookout is a tall flag pole or similar point of vantage, and this is taken possession of to the exclusion of all other birds, most especially of their own kind; in fact, the advent of another pair onto their preserve is the signal for a battle royal which generally ends as it should—in favor of the home team. From dawn till an hour or so after sunrise, and in the cool of the late afternoon

and early evening, they are most active and noisy. Their call notes can then be heard in every quarter of the city and the birds themselves are most in evidence, snatching flies over heaps of refuse in the gutters, hawking about the plazas, or "kingbirding" an unlucky Black Vulture. Activity, though, is by no means confined to these periods. Birds may be found at almost any hour of the day. On two occasions one (probably the same individual) was seen about an arc-light long after dark. It may have been attracted by the light, but in my own mind there is no doubt that the insects which buzzed around the globe in swarms were the real reason for the bird's presence, as it appeared in no way confused and kept well outside the most brilliant circle of illumination. Owing to this fact, and also because the light was quite high up, I could not actually see the bird catch anything, though its frequent short and erratic flights would indicate that this was the object. Its perch seemed to be directly above the shade. The first time was on March 29 and the second, April 1. When I returned from the coast the last of July the bird was nowhere to be seen, though I went twice to look for it. W. B. Judson has noticed the Black Phoebe doing the same thing (see CONDOR, III, 1901, page 186), and it would not be surprising to find with a little more observation that this trait has become common among others of the larger Tyrannidæ. More than once, too, the evening "concierto" was broken into by an outburst of "Chio" yells, provoked probably by some hunting Barn Owl (*Aluco*, sp. ?), several of which used the near-by cathedral tower as a day-light retreat.

As is the case with many other common and well-known varieties, the native name of "Chio" is derived from the Derby's call note, which may best be written che-oh, or chee-o, generally given rather slowly, but under stress of excitement or anger losing entirely its deliberate quality and becoming shrill and hurried. At such times, too, and particularly at the nest where the parents become almost frantic, these notes are interspersed and plentifully larded with extremely Kingbird-like expletives.

One other species may at first sight be mistaken for *derbianus*, namely, the Mexican Boat-billed Flycatcher (*Megarynchus pitangua mexicanus*), being almost identical in size and markings, and with a very similar call note. However, the absence of the light rufous wing and tail markings so conspicuous in the Derby, with shorter tail and heavier bill (which last is distinguishable at quite a distance), serve to differentiate the two. This resemblance is of course merely superficial, and except for the points mentioned and a "Tyrannine" disposition they have nothing in common. As would be expected, no local distinction is made between them, both being known as "Chio", and even the Giraud Flycatcher is universally referred to as "Chia", or the female.

Too few specimens were prepared to allow of any definite conclusions regarding food habits except that insects form the entire bill of fare. Stomachs examined contained small beetles, wasps and small grasshoppers, of relative abundance in the order named, as well as a great assortment of flying insects which I was not expert enough to identify. However, the diet must vary a good deal with the locality as well as with the season.